

EXAMINER'S REMARKS

A restriction was required under 35 U.S.C. § 121 between the group I claims of 1-11, and the group II claims of 12-24.

The drawings were objected to because the cross-sectional view of the invention was properly crosshatched.

Claims 14-19 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 12, 13, and 20 were rejected under 35 U.S.C. § 102(e) as being anticipated by USPN 6,285,067 to Hyoudo et al., (hereinafter, Hyoudo).

Claims 12, 13, and 20 were rejected under 35 U.S.C. § 102(e) as being anticipated by USPN 6,229,404 to Hatanaka, (hereinafter, Hatanaka).

Claims 14-19 and 21-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hatanaka.

REMARKS

Claims 12-24 remain in this application. Claims 12 and 20 have been amended. Claims 1-11 have been canceled.

A. Election/Restrictions

A restriction to one of the following inventions was required under 35 U.S.C. §121:

- I. Claims 1-11, drawn to a method of making a semiconductor device, classified in class 438, subclass 1+.
- II. Claims 12-24, drawn to a semiconductor device, classified in class 257, subclass 619.

During a telephone conversation with Mr. Jack Wu on 12-6-02, a provisional election was made without traverse to prosecute the invention of group II, claims 12-24.

Applicants hereby affirm the election of group II, claims 12-24. Claims 1-11 have been canceled. No new matter has been introduced with this amendment.

B. Drawings

The figures were objected to because the cross-sectional views of the invention were improperly crosshatched. Formal drawings have been submitted that correct the crosshatching pattern. No new matter has been introduced. The objection to the figures is believed to be overcome.

C. Disclosure Informalities

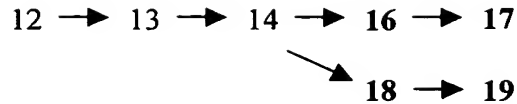
In paragraphs 5 and 19 of the specification, the word "um" is used as an abbreviation for the word "micrometer", which is equivalent to 1×10^{-6} meters. It is standard practice in the art for the word "micrometer" to be abbreviated as " μm ", wherein the Greek letter " μ " is shorthand for the International System of Units (abbreviated SI) prefix of 1×10^{-6} , and the letter "m" is shorthand for the word "meter" (See Exhibit A, pages 2-3, Volume 1 of Physics 4th Edition, by Resnick, Halliday, and Krane). It is also extremely common in the art for the Greek letter " μ " to be substituted with the letter "u" from the English alphabet, because " μ " is an uncommon symbol that is not easily reproducible or recognizable in pure text applications and files (See Exhibit B, page 23 of the glossary from UC Davis' Material Safety Data Sheet at the following URL: <http://ehs.ucdavis.edu/im/msdsglos.htm#M>). Further, on page 1805 of the Reverse Acronyms, Initialisms, & Abbreviations Dictionary, 23rd Edition, Volume 3, Part 2 (Gale Research, 1997 - See Exhibit C), the abbreviation for "micron", which is a synonym for "micrometer", is listed as "um". Applicants submit that "u" and " μ " are equivalent, and have amended both paragraphs 5 and 19 to use "um" instead of " μm ". No new matter has been introduced with this amendment.

D. Claim rejections - 35 U.S.C. §112, second paragraph - claims 14-19

Claims 14-19 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 14-15 recited "um" as a measuring unit. It was unclear to the Examiner what "um" meant. Claim 16-19 recited non-conductive material while depending upon a claim reciting that the bonding material was conductive. This was regarded as contradictory and rendered claims 16-19 indefinite.

In claims 14-15, the word "um" is an abbreviation for the word "micrometer", which is equivalent to 1×10^{-6} meters. It is standard practice in the art for the word "micrometer" to be abbreviated as " μm ", wherein the Greek letter " μ " is shorthand for the International System of Units (abbreviated SI) prefix of 1×10^{-6} , and the letter "m" is shorthand for the word "meter". (See Exhibit A, pages 2-3, Volume 1 of Physics 4th Edition, by Resnick, Halliday, and Krane.) It is also extremely common in the art for the Greek letter " μ " to be substituted with the letter "u" from the English alphabet, because " μ " is an uncommon symbol that is not easily reproducible or recognizable in pure text applications and files (See Exhibit B, page 23 of the glossary from UC Davis' Material Safety Data Sheet at the following URL: <http://ehs.ucdavis.edu/im/msdsglos.htm#M>). Further, on page 1805 of the Reverse Acronyms, Initialisms, & Abbreviations Dictionary, 23rd Edition, Volume 3, Part 2 (Gale Research, 1997 - See Exhibit C), the abbreviation for "micron", which is a synonym for "micrometer", is listed as "um". Applicants submit that "u" and " μ " are equivalent, and have amended claims 14, 15, 21, and 22 to use "um" instead of " μm ".

Claims 16-19 were rejected for being contradictory in reciting a non-conductive material while depending upon a claim reciting conductive bonding material. Applicants respectfully disagree. Claims 16-19 ultimately depend on claim 12, which recites only "bonding material joining the gasket and the pad". The following is a diagram showing the chain of dependencies for claims 16-19:



No limitation is recited in the parent claims 12, 13, or 14 regarding whether the bonding material is conductive or non-conductive. In claim 16, the bonding material is specified to be conductive. In claim 18, the bonding material is specified to be non-conductive. Claims 16-17 form one branch of claims that specify conductive bonding material, and claims 18-19 form another branch of claims that specify non-conductive bonding material. Both branches of claims originate from the chain of claims 12-13-14, which do not limit the bonding material to be conductive or non-conductive. Applicants submit that claims 16-19 are not contradictory and therefore not indefinite.

No new matter has been introduced. The rejections to claims 14-19 are believed to be overcome.

E. Claim rejections - 35 U.S.C. §102(e) - claims 12, 13, and 20

Claims 12, 13, and 20 were rejected under 35 U.S.C. § 102(e) as being anticipated by Hyoudo. Claims 12, 13, and 20 were also rejected under 35 U.S.C. § 102(e) as being anticipated by Hatanaka.

Hyoudo teaches an IC package wherein an array of packages is formed by sealing together a substrate, sides, and a cover, and then sawing the array apart to form individual packages (Figure 3A). The sides and the cover may be combined as one piece (Figure 4B).

Hatanaka teaches a crystal oscillator 2 which is partitioned off from the IC chip 3 by ceramic insulating layers 8.

In distinct contrast to both of the prior art references, the present invention has a gasket formed by etching away parts of the wafer to leave only material in the shape of a gasket. This gasket is better than the prior art gaskets, because:

- (1) it is stronger (page 2, lines 4-10), and
- (2) the gasket surface is flatter and makes a better bond (page 2, lines 11-13).

Hyoudo neither teaches nor suggests that the sides of the packages are formed by removing portions of the cover. Hatanaka does not teach or suggest that the ceramic insulating layers are formed from the material of the crystal oscillator or IC chip.

Claims 12 and 20 have been amended to read that the gasket is etched out of the material of the wafer. Independent claims 12 and 20 are believed to be allowable. Dependent claims 13-19 and 21-24 are also believed to be allowable, based on the allowability of independent claims 12 and 20. No new matter has been introduced with these amendments. The rejections to claims 12, 13, and 20 are believed to be overcome.

F. Claim rejections - 35 U.S.C. §103(a)

Claims 14-19 and 21-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hatanaka.

Independent claims 12 and 20 were amended and are now believed to be allowable, as discussed above in section E. Dependent claims 13-19 and 21-24 are also believed to be allowable, based on the allowability of independent claims 12 and 20.

No new matter has been introduced with this amendment. The rejections to claims 14-19 and 21-24 are believed to be overcome.

CONCLUSION

If the Examiner has any further questions or would like to discuss this application in more detail, he is invited to call the Applicants' agent at the telephone number given below. The Applicants respectfully suggest that the claims presently in the application are distinct over the prior art and that the application is now in condition for allowance. Accordingly, the Applicants solicit favorable action.

Respectfully submitted,

Frank S. Geefay, et al.

A handwritten signature in cursive script, appearing to read "Judy Liao Shie".

Judy Liao Shie

Patent Reg. No. 50,305

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Exhibit A

from the lifetime of the proton (greater than 10^{40} seconds) to the lifetime of the least stable particles that can be produced in our laboratories (about 10^{-23} second). When we express such a value as 10^{40} in units of seconds, what we mean is that the *ratio* between the lifetime of the proton and the time interval that is arbitrarily defined as the standard second is 10^{40} . To accomplish such a measurement, we must have a way of comparing laboratory measuring instruments with the standard. Many of these comparisons are indirect, for no single measuring instrument is capable of operating precisely over 40 orders of magnitude. Nevertheless, it is essential to the progress of science that, when a researcher records a particular time interval with a laboratory instrument, the reading can in some way be connected to a calibration based on the standard second.

The quest for more precise or accessible standards is itself an important scientific pursuit, involving physicists and other researchers in laboratories throughout the world. In the United States, laboratories of the National Institute of Standards and Technology (formerly the National Bureau of Standards) are devoted to maintaining, developing, and testing standards for basic researchers as well as for scientists and engineers in industry. Improvements in our standards in recent years have been dramatic: since the first edition of this textbook (1960), the precision of the standard second has improved by more than a factor of 1000.

1-2 THE INTERNATIONAL SYSTEM OF UNITS*

The General Conference on Weights and Measures, at meetings during the period 1954–1971, selected as base units the seven quantities displayed in Table 1. This is the basis of the International System of Units, abbreviated SI from the French *Le Système International d'Unités*.

Throughout the book we give many examples of SI derived units, such as speed, force, and electric resistance, that follow from Table 1. For example, the SI unit of force, called the *newton* (abbreviation N), is defined in terms of the SI base units as

$$1 \text{ N} = 1 \text{ kg} \cdot \text{m/s}^2$$

as we shall make clear in Chapter 5.

* See "SI: The International System of Units," by Robert A. Nelson (American Association of Physics Teachers, 1981). The "official" U.S. guide to the SI system can be found in Special Publication 330 of the National Bureau of Standards (1986 edition).

TABLE 1 SI BASE UNITS

Quantity	SI Unit	
	Name	Symbol
Time	second	s
Length	meter	m
Mass	kilogram	kg
Amount of substance	mole	mol
Thermodynamic temperature	kelvin	K
Electric current	ampere	A
Luminous intensity	candela	cd

If we express physical properties such as the output of a power plant or the time interval between two nuclear events in SI units, we often find very large or very small numbers. For convenience, the General Conference on Weights and Measures, at meetings during the period 1960–1975, recommended the prefixes shown in Table 2. Thus we can write the output of a typical electrical power plant, 1.3×10^9 watts, as 1.3 gigawatts or 1.3 GW. Similarly, we can write a time interval of the size often encountered in nuclear physics, 2.35×10^{-9} seconds, as 2.35 nanoseconds or 2.35 ns. Prefixes for factors greater than unity have Greek roots, and those for factors less than unity have Latin roots (except femto and atto, which have Danish roots).

To fortify Table 1 we need seven sets of operational procedures that tell us how to produce the seven SI base units in the laboratory. We explore those for time, length, and mass in the next three sections.

Two other major systems of units compete with the International System (SI). One is the Gaussian system, in terms of which much of the literature of physics is expressed. We do not use this system in this book. Appendix G gives conversion factors to SI units.

The second is the British system, still in daily use in the United States. The basic units, in mechanics, are length (the foot), force (the pound), and time (the second). Again Appendix G gives conversion factors to SI units. We use SI units in this book, but we sometimes give the British equivalents, to help those who are unaccustomed to SI units to acquire more familiarity with them. In only three countries [Myanmar (Burma), Liberia, and the United States] is a system other than SI used as the accepted national standard of measurement.

Sample Problem 1 Any physical quantity can be multiplied by 1 without changing its value. For example, $1 \text{ min} = 60 \text{ s}$, so $1 = 60 \text{ s}/1 \text{ min}$; similarly, $1 \text{ ft} = 12 \text{ in.}$, so $1 = 1 \text{ ft}/12 \text{ in.}$ Using appropriate conversion factors, find (a) the speed in meters per second equivalent to 55 miles per hour, and (b) the volume in cubic centimeters of a tank that holds 16 gallons of gasoline.

TABLE 2 SI PREFIXES^a

Factor	Prefix	Symbol	Factor	Prefix	Symbol
10 ¹⁸	exa-	E	10 ⁻¹	deci-	d
10 ¹⁵	peta-	P	10 ⁻²	centi-	c
10 ¹²	tera-	T	10 ⁻³	milli-	m
10 ⁹	giga-	G	10 ⁻⁶	micro-	μ
10 ⁶	mega-	M	10 ⁻⁹	nano-	n
10 ³	kilo-	k	10 ⁻¹²	pico-	p
10 ²	hecto-	h	10 ⁻¹⁵	femto-	f
10 ¹	deka-	da	10 ⁻¹⁸	atto-	a

^a In all cases, the first syllable is accented, as in na'-no-me'-ter. Prefixes commonly used in this book are shown in boldfaced type.

Solution (a) For our conversion factors, we need (see Appendix G) 1 mi = 1609 m (so that 1 = 1609 m/1 mi) and 1 h = 3600 s (so 1 = 1 h/3600 s). Thus

$$\text{speed} = 55 \frac{\text{mi}}{\text{h}} \times \frac{1609 \text{ m}}{1 \text{ mi}} \times \frac{1 \text{ h}}{3600 \text{ s}} = 25 \text{ m/s.}$$

(b) One fluid gallon is 231 cubic inches, and 1 in. = 2.54 cm. Thus

$$\text{volume} = 16 \text{ gal} \times \frac{231 \text{ in.}^3}{1 \text{ gal}} \times \left(\frac{2.54 \text{ cm}}{1 \text{ in.}} \right)^3 = 6.1 \times 10^4 \text{ cm}^3.$$

Note in these two calculations how the unit conversion factors are inserted so that the unwanted units appear in one numerator and one denominator, and thus cancel.

TABLE 3 SOME MEASURED TIME INTERVALS^a

Time Interval	Seconds
Lifetime of proton	> 10 ⁴⁰
Half-life of double beta decay of ⁸² Se	3 × 10 ²⁷
Age of universe	5 × 10 ¹⁷
Age of pyramid of Cheops	1 × 10 ¹¹
Human life expectancy (U.S.A.)	2 × 10 ⁹
Time of Earth's orbit around the Sun (1 year)	3 × 10 ⁷
Time of Earth's rotation about its axis (1 day)	9 × 10 ⁴
Period of typical low-orbit Earth satellite	5 × 10 ³
Time between normal heartbeats	8 × 10 ⁻¹
Period of concert-A tuning fork	2 × 10 ⁻³
Period of oscillation of 3-cm microwaves	1 × 10 ⁻¹⁰
Typical period of rotation of a molecule	1 × 10 ⁻¹²
Shortest light pulse produced (1990)	6 × 10 ⁻¹⁵
Lifetime of least stable particles	< 10 ⁻²³

^a Approximate values.

1-3 THE STANDARD OF TIME*

The measurement of time has two aspects. For civil and for some scientific purposes we want to know the time of day so that we can order events in sequence. In most scientific work we want to know how long an event lasts (the time interval). Thus any time standard must be able to answer the questions "At what time does it occur?" and "How long does it last?" Table 3 shows the range of time intervals that can be measured. They vary by a factor of about 10⁶³.

We can use any phenomenon that repeats itself as a measure of time. The measurement consists of counting the repetitions, including the fractions thereof. We could use an oscillating pendulum, a mass-spring system, or a quartz crystal, for example. Of the many repetitive phe-

nomena in nature the rotation of the Earth on its axis, which determines the length of the day, was used as a time standard for centuries. One (mean solar) second was defined to be 1/86,400 of a (mean solar) day.

Quartz crystal clocks based on the electrically sustained periodic vibrations of a quartz crystal serve well as secondary time standards. A quartz clock can be calibrated against the rotating Earth by astronomical observations and used to measure time in the laboratory. The best of these have kept time for a year with a maximum accumulated error of 5 μs, but even this precision is not sufficient for modern science and technology.

To meet the need for a better time standard, atomic clocks have been developed in several countries. Figure 1 shows such a clock, based on a characteristic frequency of the microwave radiation emitted by atoms of the element cesium. This clock, maintained at the National Institute of Standards and Technology, forms the basis in this country for Coordinated Universal Time (UTC), for which time signals are available by shortwave radio (stations WWV and WWVH) and by telephone.

Figure 2 shows, by comparison with a cesium clock, variations in the rate of rotation of the Earth over a 4-year

* For a history of timekeeping, see *Revolution in Time: Clocks and the Making of the Modern World*, by David S. Landes (Harvard University Press, 1983). Recent developments in precise timekeeping are discussed in "Precise Measurement of Time," by Norman F. Ramsey, *American Scientist*, January-February 1988, p. 42. An account of different systems for reporting time can be found in "Time and the Amateur Astronomer," by Alan M. MacRobert, *Sky and Telescope*, April 1989, p. 378.

Exhibit B

LOCAL VENTILATION:

Drawing off and replacement of contaminated air directly from its source.

LOWER EXPLOSIVE (FLAMMABLE) LIMIT (LEL):

Lowest concentration (lowest percentage of the substance in air) that will produce a flash of fire when an ignition source (heat, electric arc, or flame) is present.

M

MALAISE:

Feeling of general discomfort, distress, or uneasiness.

MELTING POINT:

Temperature at which a solid substance changes to a liquid state. For mixtures, a melting range may be given.

METABOLISM:

Chemical and physical processes whereby the body functions.

METASTASIS:

Transmission of a disease from one part of the body to another.

METHEMOGLOBINEMIA:

Presence of methemoglobin in the bloodstream caused by the reaction of materials with the hemoglobin in red blood cells that reduces their oxygen-carrying capacity.

mg:

Milligram (1/1000, 10⁻³, of a gram).

mg/kg:

Milligram per kilogram. Dosage used in toxicology testing to indicate a dose administered per kg of body weight.

mg/m³:

Milligram per cubic meter of air. $\text{mg/m}^3 = \text{ppm} \times \text{MW}/24.45$ at 25 C.

Microgram (ug):

One-millionth (10⁻⁶) of a gram.

Micrometer (um):

One-millionth (10⁻⁶) of a meter; often referred to as a micron.

Millimeter (mm):

1/1000 of a meter.

MISCIBLE:

Extent to which liquids or gases can be mixed or blended.

MIST:

Exhibit C

Education	Microframe, Inc. [Associated Press] (SAG)	Microm	Micromodule Microprogrammed Computer System (PDAA)	MIMICS
and Science	Microfilm Systems [Vancouver Stock Exchange symbol]	MFS	Micromoulding in Capillaries (Plastics technology)	MIMIC
	Microfunctional Circuit	MFC	Micron [Micrometer] (AAMN)	mu
	Micro-G Physics and Chemistry Experiments Group [NASA] (SSD)	MGP	Micron (DAVI)	u
	Micrograph, Inc. [NASDAQ symbol] (SAG)	MGXI	Micron (DAVI)	um
	Micrograph, Inc. [Associated Press] (SAG)	Micrgrx	Micron Electronics [NASDAQ symbol] (TTSB)	MUEI
	Micrograph (ABBR)	MGN	Micron Electronics, Inc. [Associated Press] (SAG)	MicronB
	Micro-Grain Array Processor (Electronics)	MGAP	Micron Electronics, Inc. [NASDAQ symbol] (SAG)	MUEI
	Microgram [One millionth of a gram]	MCG	Micron Industries Ltd. [Vancouver Stock Exchange symbol]	MCR
	Microgram (DAVI)	mg	Micron Technology [Associated Press] (SAG)	MicmT
	Microgram [One millionth of a gram]	MICROG	Micron Technology [NYSE symbol] (TTSB)	MU
	Microgram (WDAV)	MU G	Micron Technology, Inc. [NYSE symbol] (SPSG)	MU
	Micrograms per Gram	MPG	Micronavigator [Air Force]	MICRON
	Micrographic Catalog Retrieval	MCR	Micronesia Coalition [Defunct] (EA)	MC
	Micrographic Catalog Retrieval System	MCRS	Micronesia Support Committee [Later, MC] (EA)	MSC
	Micro-Graphic Reporting (PDAA)	MGR	Micronesian Area Research Center [University of Guam] [Research center]	
	Micrographics Management Officer (MCD)	MMO	(RCD)	MARC
	Microgravity and Materials Processing Facility	MMPF	Micronesian Legal Services Corp. (EA)	MLSC
	Microgravity Materials Science Laboratory [NASA]	MMSL	Micronesian Minerals [Vancouver Stock Exchange symbol]	MMC
	Microgravity Research Associates	MRA	MicroNet Apple User's Group [CompuServe] [Database]	MAUG
	Microgravity Science and Applications	MSA	Micronetics, Inc. [Associated Press] (SAG)	Micromt
	Microhemagglutination [Test for Syphilis] [Immunochimistry] (DAVI)	MHA	Micronetics, Inc. [NASDAQ symbol] (NO)	NOIZ
	Microhemagglutination Assay Treponema Pallidum	MHA-TP	Micronetics Wireless [NASDAQ symbol] (TTSB)	NOIZ
	(Immunochimistry)		Microneurography Society (EA)	MNS
	Microhematocrit [Clinical chemistry]	Mhct	Microneutralization [Chemistry]	MN
	Microhematuria [Medicine]	MH	Micronics Computers [NASDAQ symbol] (SPSG)	MCRN
	Microhenry (WDAV)	MU H	Micronics Computers, Inc. [Associated Press] (SAG)	Micrnics
	Microimaged Data Addition System [CAPS Equipment Ltd.]	MIDAS	Micronized Progesterone [A natural hormone]	MP
	Microimplementation Language [Burroughs Corp.]	MIL	Micronized Progesterone	MP
	Microinch (IAA)	MI	Micro-Optique	MO
	Microinch (BARN)	min	Microoperation (MHDB)	mo
	Microinch (WDAV)	MU IN	Micro-Optic Gyroscope	MOG
	Microinches per Inch (KSC)	MI	Micro-Osmometer	MO
	Microinstruction [Computer science]	MI	Microparticle Concentration [Analytical chemistry]	MPC
	Microinstruction Bus [Computer science]	MIB	Microparticle Enzyme Immunoassay	MEIA
	Microinstruction Read-Only Memory [Computer science]	MICROM	Microphone (AABC)	MIC
	Microinstruction Register	MIR	Microphone (CET)	MIKE
	Microinstruction Register (MHD)	MUIR	Microphone (MDG)	MK
	Microinstruction Simulator [Computer science] (MHD)	MICROSIM	Microphone Amplifier	MA
	Microinstruction Word	MIW	Microphone Element (IEEE)	MICLEM
	Micro-Integration [NASDAQ symbol] (TTSB)	MINT	Microphone Power Supply	MPS
	Micro-Integration Corp. [Associated Press] (SAG)	MicroIntg	Microphone Probe Kit	MPK
	Micro-Integration Corp. [NASDAQ symbol] (SAG)	MINT	Microphones [JETDS nomenclature] [Military] (CET)	M
	Micro-Interactive Retrieval System (DNAB)	MIRS	Micro-Phonics Technology International Corp. [Vancouver Stock Exchange symbol]	MPH
	Microion Mill	MIM	Microplate Reader [Computer science]	MR
	Microlayer Transistor	MLT	Microplex, Inc., Dallas, TX [Library symbol] [Library of Congress] (LCLS)	Mcl
	Microleague Multimedia [NASDAQ symbol] (TTSB)	MLMJ	Micropolis Corp. [Associated Press] (SAG)	Microp
	Microleague Multimedia Wrt [NASDAQ symbol] (TTSB)	MLMIW	Micropolis Corp. [NASDAQ symbol] (NO)	MLIS
	Microlight Aircraft Association [British] (DI)	MAA	Micropound Extended Range Thrust Stand [NASA]	MERTS
	Microliters of Carbon Dioxide Given Off per Milligram of Tissue per Hour	QCO ₂	Micropower Impulse RADAR [For fluid level sensing]	MIR
	(Medicine) (DAVI)		Micropower/St. Joseph's High School, Islington, ON, Canada [Library symbol] [Library of Congress] (LCLS)	CaOISMSJ
	Microlog Corp. [Associated Press] (SAG)	Microlog	Micropower/St. Joseph's High School, Islington, Ontario [Library symbol]	
	Microlog Corp. [NASDAQ symbol] (NO)	MLOG	[National Library of Canada] (NLC)	OIMSJ
	Micromagnetic Industries	MMI	Microprint	MP
	Micromanipulator [Instrumentation]	MM	Microprobe Analysis Generalized Intensity Corrections	MAGIC
	Micro-Master Control Processor (NITA)	MMCP	Microprocedure Call [Computer science] (MHDB)	MICALL
	Microstation Microfilm	MMF	Microprocedure Definition	MIDEF
	Microstation Online Microfilmer	MOM	Microprocessed Sensing and Automatic Regulation [Engine control system]	
	Microstation Systems, Inc., Feasterville, PA [Library symbol] [Library of Congress] (LCLS)	McS	(Automotive industry)	MISAR
	Micromechanized Engineering Data for Automated Logistics	MEDAL	Microprocessor	M
	Micromedia Ltd. [ACCORD] [UTLAS symbol]	MMML	Microprocessor	MICRO
	Micromedia Ltd., Toronto, ON, Canada [Library symbol] [Library of Congress] (LCLS)	CaOTMML	Microprocessor (MSA)	MIPRCS
	Micromedia Ltd., Toronto, ON, Canada [Library symbol] [Library of Congress] (LCLS)	McM	Microprocessor [Instrumentation]	MP
	Micromedia Ltd., Toronto, ON, Canada [Library symbol] [Library of Congress] (LCLS)	McMdl	Microprocessor [Computer science] [Unit] (ECII)	MPC
	Micromedia Ltd., Toronto, Ontario [Library symbol] [National Library of Canada] (NLC)	OTMML	Microprocessor Application of Graphic with Interactive Communication	MAGIC
	Micromedia Ltd., Hull, Quebec [Library symbol] [National Library of Canada] (BIB)	QHMMML	Microprocessor Application Project [In manufacturing industry] [Department of the Interior]	MAP
	Micro-membrane Filter	MMF	Microprocessor Application to Control-Firmware Translator [Computer science] (MHD)	MPACT
	Micro-membrane Suppressor [Ion chromatography]	MMS	Microprocessor Applications Consultancy (NITA)	MAPCON
	Micro-meteoritic Erosion (AAG)	MME	Microprocessor Arithmetic Model	MARM
	Micro-meteoroid Capsule (OA)	MMC	Microprocessor Automatic Testing [ASMAP Electronics Ltd.] [Software package] (NCC)	MATE
	Micro-meteoroid Explorer [Satellite]	ME	Microprocessor Communications System (MCD)	MCS
	Micro-meter	M	Microprocessor Control Unit	MCU
	Micro-meter [A "mike"]	MIC	Microprocessor Data Analyzer [Instrumentation]	MIDAN
	Micro-meter Frequency Meter	MMF	Microprocessor Data Extraction System [Military] (CAAL)	MPDES
	Micro-meter Low-Approach System	MILAS	Microprocessor Debugging Program [Computer science] (IAA)	MDP
	Micro-metred (MUGU)	MMF	Microprocessor Development Aid	MDA
	Micro-metred (GPO)	MMFD	Microprocessor Development Center [American Microsystems Inc. US] (NITA)	MDC
	Micro-meter (WGA)	mmmm	Microprocessor Development Lab (MHD)	MDL
	Micro-metre (IEEE)	MICROMIN	Microprocessor Development Support System	MDSS
	Micro-metre Automatic Checkout Equipment	MICROACE	Microprocessor Development System [Motorola, Inc.]	MDS
	Micro-metre Circuit (IAA)	MC	Microprocessor Developments (NITA)	MPD
	Micro-metre Delay Line	MMDL	Microprocessor Exchange [Computer science]	MPX
	Micro-metre Individual Components Reliable Assembled Modules	MICRAM	Microprocessor Flight Control System (DOMA)	MFCs
	Micro-metre Mixer Amplifier	MMA	Microprocessor Host Loader [Electronics]	MHL
	Micro-metre Relay	MR	Microprocessor Industrial Terminal [Computer science] (MHDB)	MITE
	Micro-metized Autoneutics Telemetry	MAUTEL	Microprocessor Inertia Support Programme [British] (DCTA)	MISP
	Micro-module (AAG)	MM	Microprocessor Inertia and Communication System	MICS
	Micro-module (IEEE)	MMOD	Microprocessor Interface	MPI
	Micro-module Data Processor and Computer (IEEE)	MICROPAC		